

Claims

1. A connection member for a fluid line (2)
10 containing a fluid duct, in whose wall (4) at least one
stranded signal conductor (7a and 7b) provided for the
transmission of electrical signals extends, comprising a
female socket (14), having an insertion opening (12), for
the insertion of the fluid line (2), a holding device (16)
15 for holding the inserted fluid line (2) and at least one
signal contact (26a and 26b) arranged in the female socket
and extending toward the insertion opening (14), said
signal contact having a male part (27) adapted to stick
into a signal conductor (7a and 7b) on insertion of the
20 fluid line with the production of an electrical
connection, characterized in that the male part (27) of
the at least one signal contact (26a and 26b) is
constituted by a knife edge (27a), whose width is equal to
at least the diameter of the signal conductor (7a and 7b)
25 to be contacted and which on penetration from the end is
adapted to split the signal conductor (7a and 7b) into an
externally placed and an internally placed line limb (38
and 39).

30 2. The connection member as set forth in claim 1,
characterized in that the knife edge (27a) is straight as
seen in an end-on view.

35 3. The connection member as set forth in claim 1,
characterized in that the knife edge (27a) as seen in an

end-on view is circularly arcuate, the center of curvature (43) preferably coinciding with the longitudinal axis (17) of the female socket (14)..

5 4. The connection member as set forth in any one of claims 1 through 3, characterized in that on the outer side the knife edge (27a) has a cutting flank (54) extending obliquely inward in relation to the cutting edge (37).

10 5. The connection member as set forth in any one of the claims 1 through 4, characterized in that the knife edge (27a), as seen looking radially, has a straight form at a right angle to the longitudinal axis (17) of the female socket (14).

15 6. The connection member as set forth in any one of the claims 1 through 5, characterized in that the knife edge (27a), as seen looking radially, has a concavely curved and/or V-like bayed configuration.

20 7. The connection member as set forth in any one of the claims 1 through 6, characterized in that the at least one signal contact (26a and 26b) has two guide wings (47) on opposite sides projecting toward the insertion opening (12) past the knife edge (27a) such wings defining a guide gap, widening toward the insertion opening (12), for a rib-like wall section (6) of the fluid line (2).

25 8. The connection member as set forth in any one of the 1 through 7, characterized in that the at least one signal contact (26a and 26b) has at least one support wing (52) arranged adjacent to the knife edge (27a), such wing in the inserted state of the fluid line (2) being fitted under the radially inner line limb (39) and pressing same

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against the signal contact (26a and 26b).

5 9. The connection member as set forth in claim 8, characterized in that the at least one signal contact (26a and 26b) has two support wings (52) arranged alongside each other in the longitudinal direction, which define a guide channel (53) provided to receive a rib-like wall section (6) of the fluid line (2).

10 10. The connection member as set forth in any one of the claims 1 through 9, characterized in that the width of the knife edge (27a) is larger than the diameter of the signal conductor (7a and 7b) to be contacted so that the edge (27a) sticks into the fluid line's (2) wall section
15 (6) surrounding the signal conductor (7a and 7b) as well on insertion.

20 11. The connection member as set forth in any one of the claims 1 through 10 designed for connection of a fluid line (2) whose at least one electrical signal conductor (7a and 7b) extends so that at least one part of its cross section is in a radially inwardly projecting rib-like section (6) of the wall (4).

25 12. The connection member as set forth in claim 11, characterized in that the knife edge (27a) is so arranged and designed that on plugging in the fluid line (2) it sticks into its rib-like wall section and severs same at
30 least partially along a part of its length from the remaining wall section.

35 13. The connection member as set forth in any one of the claims 1 through 12, characterized by at least two signal contacts (26a and 26b) spaced apart in the peripheral direction, which are diametrically opposite one

another.

5 14. The connection member as set forth in any one of the claims 1 through 13, characterized in that the at least one signal contact (26a and 26b) is able to slide in the direction opposer longitudinal axis (17) of the female socket (14) and cooperates with spring means (33), which may thrust it toward the insertion opening (12).

10 15. The connection member as set forth in any one of the claims 1 through 14, characterized in that the at least one signal contact (26a and 26b) is fixed on a contact carrier (28) and together with same constitutes an insert (32) inserted into the housing (13) of the
15 connection member (1).

20 16. The connection member as set forth in any one of the claims 1 through 15, characterized in that the fluid duct (2) is hose-like in configuration.

 17. The connection member as set forth in any one of the claims 1 through 16, characterized by guide means (46) for aiding insertion of the fluid line (2) at a predetermined angular position.